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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,173	02/10/2006	Walid Ali	PHUS030273US	6165

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EXAMINER

BEHRINGER, LUTHER G

ART UNIT	PAPER NUMBER
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3766

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,173	Applicant(s) ALI, WALID	
	Examiner LUTHER G. BEHRINGER	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the communication received on 03/17/2009 concerning application no. 10/568173 filed on 02/10/2006. In view of Applicant's arguments, the Finality of the Office Action mailed on 11/21/2008 is withdrawn in favor of this Non-Final Office Action.

Response to Arguments

2. Applicant's arguments with respect to claim(s) 1 – 16 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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4. Claim(s) 1, 4, 7 and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 7, 8, 17 and 18 of copending Application No. 10/597309. Claims 7, 8, 17 and 18 of application 10/597309 are preliminary steps to the actuation of claim(s) 1, 4, 7, and 13 of the instant application.

This is a provisional obviousness-type double patenting rejection.

Claim Objections

5. Claim(s) 7 and 12 are objected to because of the following informalities: In claim 7, the following phrase appears incorrect: "in response determining that an artifact was detected".

6. Claim 10 recites a limitation that appears to be in opposition to the invention as claimed in claim 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim(s) 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by **Shimauchi et al. (US 5,661,813, herein Shimauchi)**.

Regarding **claim(s) 1 and 13**, Shimauchi discloses a device and system comprising: a controller, *echo canceller 22_m*; a memory coupled to the controller, *Sig*

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Storage and Vect Gen 17_n; and an input interface arranged to receive at least two event signals, **11₁**, **11₂**, **11_n**, wherein the controller is arranged to determine a global correlation, for the at least two event signal over a first period of time, *correlation between previously received signals*, determine a local correlation, for the at least two event signals over a second period of time which is shorter than the first period of time, *correlation between current received signals*, determine a deviation between a local correlation vector and a global correlation vector, *a variation in the cross-correlation*, determine an average deviation from the deviation, *Normalized Least Mean Square algorithm*, and determine whether an artifact, *echo*, was detected in one of the at least two event signals (Abstract, Fig. 6, Col. 2, ll. 9 – 37).

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claim(s) 2 – 6 and 14 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shimauchi et al. (US 5,661,813, herein Shimauchi)** in view of **Snyder et al. (US 6,287,328, herein Snyder) (cited previously)**.

With regard to **claim(s) 2 and 14**, Shimauchi fails to disclose wherein said device is a patient monitoring system.

However, Snyder teaches wherein said device is a patient monitoring system (Abstract).

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11. As applicant admits on page 4, ll. 12 – 20 of the specification that the instant invention is intended for use with any measured input signal source, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the patient monitoring system having multivariable artifact assessment as disclosed by Snyder to utilize the artifact assessment techniques as taught by Shimauchi since all of the claimed elements were disclosed in the prior art and the combination would have yielded predictable results to one of ordinary skill at the time of the invention.

Regarding **claim(s) 3 and 15**, Shimauchi in view of Snyder discloses wherein said at least two event signals are patient monitored data signals (Snyder: Col. 4, ll. 42 – 47).

With regard to **claim 4**, Shimauchi in view of Snyder discloses all of the limitations of claim 4 as discloses in claim 1 above and further discloses an alarm indicator coupled to the controller, the alarm indicator being triggered if at least one of the event signals crosses a preset threshold value and the controller determines that no artifact was detected in the at least one event signal (Snyder: Col. 7, ll. 55 – 63).

Regarding **claim 5**, Shimauchi in view of Snyder inherently discloses a memory for recording the at least two event signals (Snyder: Col. 4, ll. 24 – 41).

Regarding **claim 6**, Shimauchi in view of Snyder discloses wherein said device is a server forming part of a client-server network (Shimauchi: Col. 1, ll. 11 – 39).

With regard to **claim 16**, Shimauchi in view of Snyder discloses the method further including: means for monitoring at least one physiological parameter of a patient and generating the at least two event signals, *sensors*, said at least two event signals conveying patient physiological parameter data (Snyder: Abstract; Col. 4, ll. 42 – 47).

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12. Claim(s) 7 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Snyder et al. (US 6,287,328, herein Snyder)** in view of **Shimauchi et al. (US 5,661,813, herein Shimauchi)**.

Regarding **claim 7**, Snyder discloses a controller, *inference processor*; a memory coupled to the controller; and an input interface which receives at least two event signals, the at least two event signals being patient monitored data signals, *measurement system*; wherein the controller determines whether an artifact is detected (Column 4, lines 24 – 41) and triggering an alarm indication in response determining that an artifact was detected (Abstract). Snyder fails to disclose the method of determining artifact corruption as claimed in the instant application.

However, Shimauchi teaches determining artifact, *echo*, corruption by using: a global correlation matrix for the at least two event signals over a first period of time, *correlation between previously received signals*, a local correlation matrix for the at least two event signals over a second period of time which is shorter than the first period of time, *correlation between current received signals*, a correlation vector indicative of a deviation between the local correlation matrix and the global correlation matrix, *a variation in the cross-correlation*, an average of the correlation vector, *Normalized Least Mean Square algorithm*, and whether an artifact, *echo*, was detected in one of the at least two event signals from the correlation vector and the average, of the correlation vector (Abstract, Fig. 6, Col. 2, ll. 9 – 37).

13. As applicant admits on page 4, ll. 12 – 20 of the specification, that the instant invention is intended for use with any measured input signal source, it would have been

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obvious for one of ordinary skill in the art at the time of the invention to modify the artifact assessment techniques as disclosed by Shimauchi for detection of artifact in a patient monitoring system since all of the claimed elements were disclosed in the prior art and the combination would have yielded predictable results to one of ordinary skill at the time of the invention.

With regard to **claim 8**, Snyder in view of Shimauchi discloses wherein said device is a patient monitoring system (Snyder: Abstract).

Regarding **claim 9**, Snyder in view of Shimauchi discloses wherein said at least two event signals are patient monitored data signals (Snyder: Col. 4, ll. 42 – 47).

Regarding **claim 10**, Snyder in view of Shimauchi discloses providing the alarm indication in response to at least one of the event signals crossing a preset threshold value and no artifact was detected in the at least one event signal (Snyder: Col. 7, ll. 55 – 63).

With regard to **claim 11**, Snyder in view of Shimauchi inherently discloses a memory for recording the at least two event signals (Snyder: Col. 4, ll. 24 – 41).

Regarding **claim 12**, Snyder in view of Shimauchi discloses wherein said method is used in a server forming part of a client-server network (Shimauchi: Col. 1, ll. 11 – 39).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUTHER G. BEHRINGER whose telephone number is (571)270-3868. The examiner can normally be reached on Mon - Thurs 9:00 - 6:30; 2nd Friday 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on (571) 272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl H. Layno/
Supervisory Patent Examiner, Art Unit 3766

/Luther G Behringer/
Examiner, Art Unit 3766